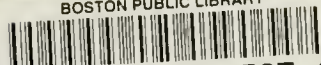


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NATIONAL RECOVERY ADMINISTRATION

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DIVISION OF REVIEW

EVIDENCE STUDY

NO. 15

OF

GENERAL CONTRACTORS INDUSTRY

Prepared by

JOHN C. HUMPHREY

September, 1935

PRELIMINARY DRAFT

(NOT FOR RELEASE: FOR USE IN DIVISION ONLY)

THE EVIDENCE STUDY SERIES

The EVIDENCE STUDIES were originally planned as a means of gathering evidence bearing upon various legal issues which arose under the National Industrial Recovery Act.

These studies have value quite aside from the use for which they were originally intended. Accordingly, they are now made available for confidential use within the Division of Review, and for inclusion in Code Histories.

The full list of the Evidence Studies is as follows:

- | | |
|-------------------------------------|---|
| 1. Automobile Manufacturing Ind. | 23. Mason Contractors Industry |
| 2. Boot and Shoe Mfg. Ind. | 24. Men's Clothing Industry |
| 3. Bottled Soft Drink Ind. | 25. Motion Picture Industry |
| 4. Builders' Supplies Ind. | 26. Motor Bus Mfg. Industry (Dropped) |
| 5. Chemical Mfg. Ind. | 27. Needlework Ind. of Puerto Rico |
| 6. Cigar Mfg. Industry | 28. Painting & Paperhanging & Decorating |
| 7. Construction Industry | 29. Photo Engraving Industry |
| 8. Cotton Garment Industry | 30. Plumbing Contracting Industry |
| 9. Dress Mfg. Ind. | 31. Retail Food (See No. 42) |
| 10. Electrical Contracting Ind. | 32. Retail Lumber Industry |
| 11. Electrical Mfg. Ind. | 33. Retail Solid Fuel (Dropped) |
| 12. Fab. Metal Prod. Mfg., etc. | 34. Retail Trade Industry |
| 13. Fishery Industry | 35. Rubber Mfg. Ind. |
| 14. Furniture Mfg. Ind. | 36. Rubber Tire Mfg. Ind. |
| 15. General Contractors Ind. | 37. Silk Textile Ind. |
| 16. Graphic Arts Ind. | 38. Structural Clay Products Ind. |
| 17. Gray Iron Foundry Ind. | 39. Throwing Industry |
| 18. Hosiery Ind. | 40. Trucking Industry |
| 19. Infant's & Children's Wear Ind. | 41. Waste Materials Ind. |
| 20. Iron and Steel Ind. | 42. Wholesale & Retail Food Ind. (See No. |
| 21. Leather | 43. Wholesale Fresh Fruit & Veg. 31) |
| 22. Lumber & Timber Prod. Ind. | |

In addition to the studies brought to completion, certain materials have been assembled for other industries. These MATERIALS are included in the series and are also made available for confidential use within the Division of Review and for inclusion in Code Histories, as follows:

- | | |
|------------------------------------|--|
| 44. Wool Textile Industry | 49. Household Goods & Storage, etc. (Dropped) |
| 45. Automotive Parts & Equip. Ind. | 50. Motor Vehicle Retailing Trade Ind. (Dropped) |
| 46. Baking Industry | 51. Retail Tire & Battery Trade Ind. |
| 47. Canning Industry | 52. Ship & Boat Bldg. & Repairing Ind. |
| 48. Coat and Suit Ind. | 53. Wholesaling or Distributing Trade |

L. C. Marshall
Director, Division of Review

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GENERAL CONTRACTORS INDUSTRY
(A Division of the Construction Industry)

Foreword

The statistical information in this report is based in a large measure on material assembled from the Census volume entitled, Construction Industry, prepared as part of the Fifteenth Census, 1930. Supplementary material has been obtained from reports of the Bureau of Internal Revenue, the F. W. Dodge Corporation, the Bureau of Labor Statistics, Associated General Contractors of America (a national trade organization), Engineering News Record and Architectural Record (trade publications), The Builders Association of Chicago (a trade organization); the National Association of Real Estate Boards' Members (a national organization of real estate operators); the American Federation of Labor, and from transcripts of the public hearings before the NRA for the Code for the Construction Industry as a whole. Census data for the most part are limited to the Census year 1929.

The Census data in nearly all cases represent only a sample of the Industry, and the tabular material consequently cannot be regarded as giving a complete summary of the Industry as defined by the Code. Nevertheless the information is believed to be useful from the standpoint of showing intra-industry relationships; for example, the relative importance of various states in the Industry, and seasonality of activity as indicated by monthly fluctuations in the number of wage earners.

It should also be noted that data taken from the Census are based on samples of varying completeness. The number of General Contractors supplying information on a particular point is therefore indicated either in the text or in the footnotes of the tables.

The nature of the General Contractors Industry precluded the preparation of material on a number of topics called for in the Outline for the Collection of Evidence. For instance, the sections dealing with the volume and value of products exported, the amount of goods entering interstate commerce, and the amounts sold to the wholesale and retail trades have been omitted. Lack of comprehensive data has also precluded any discussion of such topics as total number of wage earners and total annual wages, and state breakdowns for the same.

Chapter I

THE INDUSTRY

Definition of the Industry

The General Contractors Industry, a Division of the Construction Industry, was defined in the Code approved on February 17, 1934, as follows:

"Section 1. A General Contractor.-- The term 'general contractor' is hereby defined to mean without limitation any individual, partnership, association, trust, trustee, trustee in bankruptcy, receiver, corporation or agency which undertakes, whether by formal contract or otherwise, to direct, superintend, coordinate and execute either directly or through others, the work of constructing, substantially in its entirety, any fixed structural or physical improvement, or a modification thereof, or an addition or repair thereto, excluding any such operation aggregating in its entirety less than the sum of \$1000.00.

"It is recognized that the function of the architect or professional engineer is to design or plan construction projects and acting in his professional capacity to supervise the execution thereof on behalf of the owner. Such architects or professional engineers in the performance of their normal and customary functions shall not be deemed to be included in the foregoing definition of a general contractor.

"Section 2. The term 'Subdivision of the General Contractors Division of the Industry,' or 'Subdivision' shall mean a defined section of this division, established for administration purposes. Without limitation upon any additional subdivisions, the subdivisions which shall be established and defined in Sub-Chapters IIA, IIB and IIC hereto are:

Chapter IIA -- Building Contractors Subdivision,
IIB -- Heavy Construction and Railroad Contractors Subdivision,
IIC -- Highway Contractors Subdivision."

The Census classification "General Contractor" refers to "one who contracts for the entire work on a given construction project directly with the owner, or his agent, is responsible for the execution of the whole and usually does some portion of the actual work with his own constructing forces." ^{1/}

It will be noted that the two definitions are dissimilar in that the Code definition is a functional one and the Census a contractual one, but the two classifications are roughly comparable so far as coverage of the Industry is concerned.

^{1/} Census report, Construction Industry, 1929, p. 7.

Despite the similarity of the two definitions, there are definite limitations to the usefulness of the Census material. Among these is the incompleteness of the data for contractors doing business amounting to less than \$25,000 in 1929. Of the more than 30,000 general contractors who fell in this category, only about 6,000 supplied information on their volume of business and none in the group reported on the number of employees, amount of wages paid, etc. Hence, much of the Census material must be qualified to the extent of this incompleteness.

Place of the General Contractor in the Construction Industry

Construction work is performed under four major systems, the distinguishing feature of each being the amount of responsibility assumed by the various parties in the construction of a structure. These systems may be described briefly as follows:

- (1) Under the general contract system, a single firm or general contractor contracts to furnish a completed structure, as specified. He may elect to do the bulk of the work awarded with his own men or he may sublet any or all portions of the work to subcontractors and retain only the general supervisory and coordinating functions to be performed by his own help. It is exceptional for a general contractor to perform all operations with his own employees and usually the work of one or more of the mechanical trades (such as steel erecting, electrical, plumbing, heating, or insulation) is let separately from the general contract to contractors who may have no financial relationship with the general contractor.
- (2) Under the separate contracts system, contracts are awarded by the owner or architect to several contractors. A principal contractor is authorized to coordinate the work of the several contractors with respect to the hoisting of materials, the provision of storage space, etc., and a superintendent generally employed by the architect but sometimes by one of the coordinate contractors, superintends the work of the several contractors and adjusts relationships with the principal contractor.
- (3) Under a third system, separate contracts are awarded for portions of the work, but the major part is done by forces employed directly by the owner. A superintendent who represents the owner superintends and coordinates the work. Some major industrial work, speculative apartment house construction, and much home building is done under this system.
- (4) Under a fourth system, the owner hires day laborers to perform all the major construction operations. This system is ordinarily used only by public agencies and by large industrial or corporate agencies having specialized construction crews which engage in maintenance, repair, and new construction operations. It is in general use in the construction of mine buildings, concentrating mills, tipples, bunkers, smelting plants, etc.

By definition, construction work under all four systems is brought under Code provisions though, strictly speaking, general building contractors are involved only in the first two systems mentioned and only as principal contractors in the second system.

According to statistics compiled by the F. W. Dodge Corporation, approximately 72 per cent of the total general building construction in 1934 was performed under the first two systems; that is, by general contractors and principal contractors. The remainder was done by separate contractors or by owners under the last two systems listed above.

History

The general contract system developed in the building division of the Construction Industry about 1884. Prior to that time, building operations were performed under separate contracts signed directly with the owners and executed under the direction of the architect or master builder who served the owner as designer and supervisor of the work. Because the functions of executing construction bore little relationship to the functions of designing, general contractors were developed to take charge of the construction work under contracts which required them to deliver a completed structure according to the designer's plans and specifications.

In the heavy construction and highway divisions, general contracting has had a long history. Large projects such as the construction of canals, railroads, postroads, major bridges, sewers, dams, and similar structures were built under general contracts long before general contracting as such appeared in the building contractors division of the Industry. The earlier general contractors were frequently government-subsidy promoters and financial brokers or subsidiaries of promotional and financing houses. Such firms were usually organized to handle specific projects and disappeared after their projects were completed. With the development of public ownership law and the financing of public projects, there developed from among engineers, managers, and executives of older promotional contracting organizations a considerable number of firms which specialized in general contract work for highway grading, bridge building, street and sewer construction, and for major engineering projects of all kinds in the heavy construction field. The growth of such firms is said to have begun in the late seventies and early eighties when such public projects as the Brooklyn Bridge, Eads Bridge at St. Louis, and other publicly financed ventures proved the economic practicability of constructing under general contract such large public undertakings.

Mechanization in building construction has progressed to a certain extent, particularly with respect to the delivering, handling, and hoisting of materials, in which tremendous improvements have taken place. Otherwise, however, the Industry is still based upon handicraft operations. The improvements that have occurred in the craft processes have largely involved improvements in construction materials and changes in designs made possible by improvement in the materials. The use of structural steel frames and reinforced concrete have formed the basis for most of the modification and improvement in building construction which has occurred since the beginning of the twentieth century.

Number of Establishments

The Census report for the Construction Industry showed a total of 45,104 General Contractors in 1929, of whom 14,766 reported that they had done a business of more than \$25,000, and 30,338 reported a business of less than \$25,000 for 1929. 1/ The Code Authority for the Industry had 39,911 firms on its mailing list, as of May 22, 1935. 2/

The Number of General Contracting establishments located in ten of the leading states in 1929 is shown in Table I, below. According to this tabulation the largest numbers of General Contractors are located in Ohio, New York, and California.

No figures are available on the number of companies operating establishments in more than one state.

TABLE I

Number of General Contractors, by Principal States, 1929

State	Number of General Contractors		Total
	with Volume of		
	\$25,000 and	Less than	
	Over	\$25,000 a/	
U. S. Total	14,766	30,338	45,104
California	1,393	4,245	5,638
Illinois	956	1,355	2,311
Massachusetts	605	1,146	1,751
Michigan	692	1,361	2,053
New Jersey	719	1,324	2,043
New York	1,720	4,207	5,927
Ohio	1,040	6,986	8,026
Pennsylvania	1,197	2,470	3,667
Texas	580	949	1,529
Wisconsin	552	1,345	1,897
All Other States	5,312	4,950	10,262

Source: Census Report, Construction Industry, 1929. Figures compiled from Tables 1 and 12 for the various states.

a/ Includes only those active in 1929.

Capital Investment and Failures

No data are available on these subjects.

1/ Census report, Construction Industry, 1929, pp. 20 and 155.

2/ This list is considered incomplete and the total number of establishments is held to be something over 40,000.

Financial Condition

The Industry, as has been pointed out, comprises more than 40,000 firms functioning in all parts of the United States. The constant shifting of their diverse financial positions and the difference in their respective functions make it impossible to make any exact statement in regard to the financial condition of general contractors as a whole.

The data of the Bureau of Internal Revenue, presented in Table II, below, on the combined returns for buildings and construction above ground and other construction underground and on surface (not buildings) shows something of the financial condition of the Industry for the years 1929, 1931, and 1932. This information can be used only to indicate that the volume of business, i.e., gross income, and likewise the net income, have declined markedly since 1929. No statement as to the extent of the decline for the Industry as a whole can be made for several reasons, chief of which are the fact that the data are not limited to General Contractors and the fact that of the total number of construction firms, individuals and partnerships, only about 18,000 were corporations filing returns.

TABLE II

Gross and Net Income, 1929, 1931, and 1932

Combined Returns For Building and Construction Above Ground and Other Construction Underground and on Surface (Not Buildings) ^{a/}

Item	1929			1931			1932		
	Total	Reporting Net Income	Reporting No Net Income	Total	Reporting Net Income	Reporting No Net Income	Total	Reporting Net Income	Reporting No Net Income
Number of Corporations	18,092	10,318	7,774	17,873	6,374	11,499	17,083	2,083	15,000
Gross Income (000's)	\$2,972,858	\$2,230,951	\$741,907	\$2,120,292	\$1,151,013	\$969,279	\$1,362,926	\$432,960	\$929,966
Net Income or Deficit (000's)	+ \$109,129	+ \$172,214	-\$63,085	-\$27,126	+\$76,221	-\$103,347	-\$108,804	+\$26,295	-\$135,099

Source: Bureau of Internal Revenue, Statistics of Income for specified years.^{a/} "Building and Construction above Ground," according to the Bureau of Internal Revenue, comprised:

- (a) Building by contract, iron, steel, wood, masonry (cement, concrete, mosaic, stucco or tile work); carpentering, decorating, glazing, fire proofing, painting, vaporizing, plastering, plaster board work; tinsmithing; roofing work (compound, metal, shingle, slag); sheet metal work;
- (b) Installing machinery and equipment-carrier, cleaning, fire protection, vacuum or ventilating systems; elevators; soda fountains; tanks; millwrighting; plumbing, heating, lighting, and electrical contractors; and (c) Moving, razing or wrecking buildings and sale of material (not including marine wrecking).

"Other Construction Underground and on Surface (Not Buildings)," according to the Bureau, comprises

(a) Bridge Building; blasting; caisson work; clearing, grading or reclaiming lands; excavating for canals,

cellars, ditches, trenches, irrigation systems, etc.; laying pipe for gas and sewer systems, water works, etc.; constructing levees, reservoirs, laying masonry foundations (other than for buildings) ; paving, road building, including railroad beds; building oil derricks; drilling wells (gas, oil, or water); sinking shafts; test boring, tunneling or other mine construction work; (b) general contracting not allocable to "Building and Construction Above Ground"; (c) Waterfront construction, including bulkheads, cofferdams, dams, dikes, drydocks, petties, marine railways, piers, rigging lifts, wharves dredging, piling; (d) Related industries, such as those of cleaning or scaling boilers; cleaning stone buildings by sand blasting or otherwise; treatment of cement floor to prevent dust.

Total Value of Construction

The census report on the Construction Industry placed the value of all construction business handled in 1929 at more than \$7,285,000,000. Of this total, something over \$1,507,000,000 represented the duplication involved in the reports of contractors who worked under subcontract for others, while the remaining \$5,778,000,000 was the measure of the actual net value of construction work done. 1/ The F. W. Dodge Corporation estimated the total value of all construction work for the United States in 1929 at \$7,901,400,000. 2/

The above figures refer to total construction work done by all types of establishments. The Census figures show that the 14,766 General Contractors in the group doing a business of more than \$25,000 in 1929 handled construction valued at \$4,217,367,000, or 58 per cent of the total \$7,285,000,000. Information is not available as to the total construction handled by general contractors who did a business of less than \$25,000. The \$4,217,367,000 worth of construction business handled by the larger General Contractors represented more than 67 per cent of the work handled by the three main building groups, general contractors, operative builders, and subcontractors (as reported by establishments doing a business of more than \$25,000 in 1929.) 3/

Type of Work

The importance of various types of construction handled by general contractors is indicated in Table III below. By far the most important item in 1929 was building. Next in importance were highway construction, and street paving. The amounts shown for general contractors who handled business of less than \$25,000, it should be noted, are based on reports from only about 6,000 of the 30,000 or more general contractors in this group.

1/ Census report, Construction Industry, 1929, p. 20.

2/ F. W. Dodge Corp., Division of Statistics and Research, Building and Engineering Volume in the United States (January 2, 1931).

3/ Census report, Construction Industry, 1929, p. 21. Since the figures in this paragraph refer to "work handled" rather than "work done" (by own forces) the duplication mentioned at the beginning of the section has not been allowed for.

TABLE III

Value of Various Types of Construction Handled by General Contractors, 1929

Type of Work	: General Contractors with Value of Business			
	: \$25,000 and Over		: Less than \$25,000 ^{a/}	
	: Number of Establish- ments re- porting	: Value of Business (Thousands)	: Number of Establish- ments re- porting	: Value of Business (Thousands)
Total	: 14,766	: \$4,217,367	: 6,073 ^{b/}	: \$66,832
Building	: 10,131	: 2,622,047	: 5,484	: 60,164
Highway	: 1,514	: 443,064	: 330	: 4,066
Bridge and Culvert	: 475	: 137,206	: 85	: 749
Grading	: 396	: 47,733	: 1	: 16
Street Paving	: 984	: 282,760	: 11	: 124
Sewer, Gas, Water, Conduit	: 494	: 115,153	: 117	: 1,159
Dam and Reservoir	: 87	: 28,483	: 17	: 211
Waterworks	: 105	: 44,210	: 1	: 14
Dredging, River, Harbor (etc.)	: 193	: 104,463	: 10	: 148
Levee	: 34	: 5,631	: -	: -
Railroad	: 137	: 105,302	: 3	: 40
Foundation	: 56	: 8,282	: 14	: 140
Central Station, Light and Power Plant	: 86	: 158,160	:	:
Air Transport Work	: 7	: 2,416	:	:
Refuse Disposal Plant	: 7	: 1,721	:	:
Oil and Natural Gas Pipe Line	: 22	: 29,507	:	:
Subway (Other Than Build- ings)	: 24	: 71,318	:	:
All Others	: 14	: 9,411	:	:

Source: Census report, Construction Industry, 1929, pp.66 and 165.

^{a/} Includes only those active in 1929

^{b/} Only 6,073 of the total 30,338 in this group reported this information

Productive Capacity

The productive capacity has never been reached and is limited only by the volume of available labor and capital. At no time has the productive capacity approached the limit. Between the years 1924 and 1929 there was in some localities a scarcity of certain skilled workmen but the condition was not general and never really became serious.

Competition

There are no industries whose products compete directly with the products of this industry. The F. W. Dodge Corporation shows that the general contractors in 1934 did 72 per cent of the total construction in the Dodge Area. (Meaning 37 States east of the Rocky Mountains.)

Chapter II

LABOR

Total Number of Wage Earners

Data on the total number of wage earners employed by general contractors are not available. The Census of Construction reports are limited to 13,036 of the 14,766 general contractors who did work valued at \$25,000 or more. No figures are given for general contractors in the "Less than \$25,000" class. 1/

Seasonal Variation in Employment

That there is a definite seasonal variation in employment in the Industry is evident from data in the Census report which shows wage earners by months in 1929. In January of that year 329,811 wage earners were employed by the 13,036 establishments reporting. The number increased through the spring and summer to a peak of 674,149 in August, with a decline to 430,299 in December. While the Census data do not cover the entire Industry, it is believed that the trend of employment as indicated by these data is fairly representative of the Industry as a whole for that year. 2/

Total Annual Wages

Data on the total annual wages paid by the Industry are not available. The 14,766 general contractors who did business valued at more than \$25,000 in 1929 reported their total wage bills, but there is no Census information on the group which did work valued at less than \$25,000. 3/

Average Hourly Earnings and Hours Per Week

In general, average hourly earnings are of little value in the General Contractors Industry since several hundred classes of labor are employed and the wages for each class vary among different sections of the country and on different jobs.

Employees may be classed as skilled, semi-skilled, and unskilled, although there are no clearly defined divisions among the three groups. With the increasing mechanization of operations, the proportion of skilled and semi-skilled has increased although this is not necessarily reflected in the average hourly rates.

1/ Census report, Construction Industry, 1929, p. 33. The total monthly average number of wage earners employed by these 13,036 General Contractors was 517,857 in 1929. This number should be considered as a minimum only. As the turnover in employment in this Industry is relatively high the number of individuals who worked for the reporting contractors during the year would be somewhat higher than the above figure.

2/ Ibid., p.33.

3/ The total wages paid by these 14,766 General Contractors was \$914,112,000 in 1929. Ibid., p.21.

Since the beginning of 1934 the Bureau of Labor Statistics has published each month the average hourly earnings and average hours worked per week from about 10,000 firms in the Building Construction Industry. These figures, which are shown in Table IV, below, are based on reports received from all over the country, but for the most part firms reporting are located in large cities. It should be stressed that these figures apply to all kinds of building construction and not to general contractors alone.

Hourly earnings ranged between 77.2 and 83.5 cents, and average hours worked per week between 26.6 and 29.9 hours.

TABLE IV

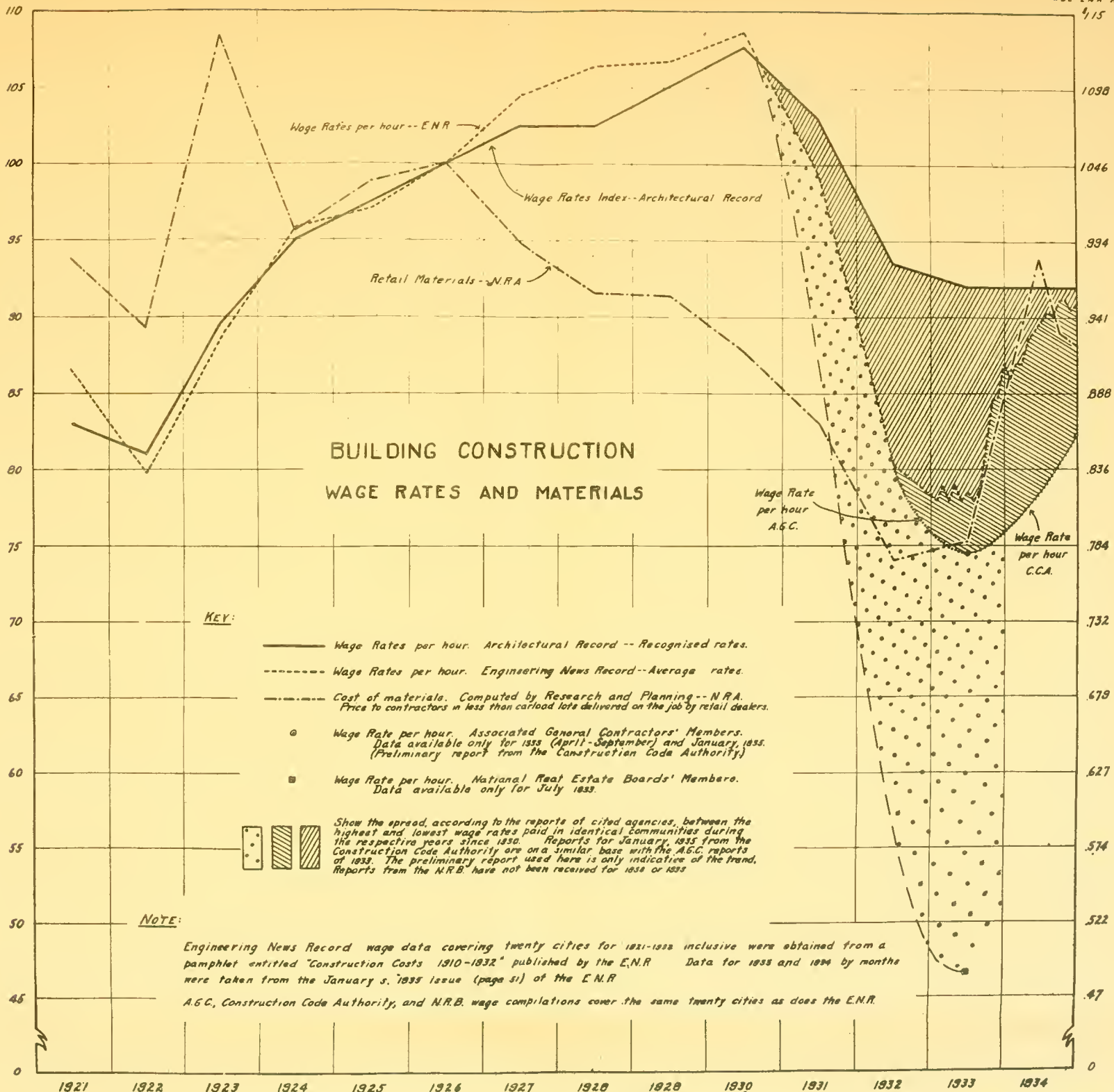
Average Hourly Earnings and Hours Worked Per Week in the Building Construction Industry, by Months in 1934

Month	: Number of : Firms : Reporting	: Average Hourly : Earnings : (cents)	: Average Hours : Per Week : Per Man
January	: 7,471	: 77.5	: 27.9
February	: 10,001	: 79.2	: 26.6
March	: 10,281	: 79.0	: 27.8
April	: 10,410	: 77.4	: 28.6
May	: 10,647	: 77.5	: 29.6
June	: 10,727	: 77.2	: 29.9
July	: 10,725	: 78.8	: 29.7
August	: 10,479	: 79.7	: 29.0
September	: 10,491	: 80.1	: 29.0
October	: 10,366	: 80.1	: 29.8
November	: 10,338	: 81.9	: 28.9
December	: 10,054	: 83.5	: 27.8

Source: Bureau of Labor Statistics, Trend of Employment.

Additional information on earnings for specified groups in the Industry is contained in Chart I and Tables V and VI. Chart I presents a compilation of data on wages and material costs from various indicated sources for the period from 1921 through 1934. The wage data are based on reports from 20 cities. According to this chart, wage rates per hour rose steadily over the period from 1922 to 1930 but after that showed a marked decline. The information in this chart also applies to building construction in general and not to general contractors alone.

Table V, below, shows average hourly wage rates and estimated yearly earnings and hours worked in the years 1929 and 1933 for selected groups of skilled construction workers. These figures were compiled by the Division of Research and Planning, NRA, in many cases from data furnished at public hearings by employers and employees within the respective listed areas. These figures indicate variations previously mentioned in the rates paid to the same class of workers in different cities and also the variation in wages paid to different crafts. In nearly all instances, hourly rates were lower in 1933 than in 1929.



Similar data for the years 1929, 1931, 1933, and 1934 are presented in Table VI, below, for bricklayers and hodcarriers in a large number of cities. These figures indicate a decline in wage rates between 1929 and 1933, with slight improvements noticeable in 1934.

This material at best represents fragmentary information obtained from a variety of sources and is not limited to employees of general contractors but rather applies to workers in the Construction Industry as a whole.

Employees Under 17 Years of Age

The Census of Occupations for 1930 shows the following employees in the Construction Industry as a whole between the ages of 16 and 17 years.

Architects, designers, and draftsmen's apprentices	47
Carpenters' apprentices	1,705
Electricians' apprentices	1,084
Plumbers' apprentices	1,698
Tin and coppersmiths' apprentices	550
Apprentices to other building and hand trades	<u>3,922</u>
Total	9,006

Under the Code the minimum age for apprentices in the various trades was 18 years.

TABLE V

Wage Rates and Estimated Average Annual Earnings and Hours of Employment
for Skilled Craftsmen in Areas covered by Regional Agreements under the
Construction Industry Code

Area a/	1929			1933		
	Hourly Rate Paid	Earnings in Year (total)	Hours Worked in Year	Hourly Rate Paid	Earnings in Year (total)	Hours worked in Year
<u>Painters</u>						
Philadelphia, Pennsylvania	\$1.05	\$ 840	800	50¢ to \$1.00	\$ 335	670 to 335
Cincinnati, Ohio	\$1.31 $\frac{1}{4}$	\$1,440	1,100	? to \$1.15	\$ 420	? to 365
St. Paul, Minnesota	87 $\frac{1}{2}$ ¢ to \$.95¢	\$1,120	1,280 to 1,180	60¢ to 90¢	\$ 530	885 to 590
St. Louis, Missouri	\$1.43 $\frac{3}{4}$	\$ 583	405	80¢ to \$1.25	\$ 201	250 to 160
Shawnee County, Kansas	\$1.00	\$1,025	1,025	70¢ to 87 $\frac{1}{2}$ ¢	\$ 360	515 to 410
Cedar Rapids, Iowa	\$1.00	\$ 955	955	25¢ to 75¢	\$ 311	1,250 to 415
State of California	62 $\frac{1}{2}$ ¢ to \$1.12 $\frac{1}{2}$	\$1,206	1,930 to 1,070	72¢ to 87 $\frac{1}{2}$ ¢	\$ 545	750 to 625
Houston, Texas	\$1.12 $\frac{1}{2}$	\$1,340	1,190	62 $\frac{1}{2}$ ¢	\$ 442	710
<u>Carpenters</u>						
Louisville, Kentucky	\$1.00	\$ 912	912	? to 80¢	\$ 253	? to 320
Sedgwick County, Kansas	\$1.00	\$ 975	975	30¢ to 75¢	\$ 70.50	235 to 95
Houston, Texas	\$1.12	\$1,400	1,250	50¢ to 75¢	\$ 259	520 to 346
Wilmington, Delaware	90¢ to \$1.00	\$1,570	1,520 to 1,370	40¢ to \$1.00	\$ 380	950 to 380
<u>Electricians</u>						
Chicago, Illinois	\$1.62 $\frac{1}{2}$	\$1,520	935	\$1.00 to \$1.50	\$ 495	495 to 330
Detroit, Michigan	\$1.50	\$1,880	1,250	\$1.00 to \$1.25	\$ 580	580 to 465
Evansville, Indiana	\$1.37 $\frac{1}{2}$	\$1,200	875	? to \$1.00	\$ 408	? to 408
Miami, Florida	\$1.50	\$1,030	690	? to \$1.00	\$ 584	? to 584

(Continued on following page)

Area <u>a/</u>	Masons					
	1929			1933		
	Hourly Rate Paid	Earnings in Year (total)	Hours worked in Year	Hourly Rate Paid	Earnings in Year (total)	Hours worked in Year
St. Louis, Missouri	\$1.75	\$1,800	1,030	75¢ to \$1.50	\$ 475	635 to 320
Houston, Texas	\$1.62½	\$1,720	1,060	? to \$1.00	\$ 290	? to 290
Los Angeles, California	\$1.37	\$1,625	1,190	? to \$1.00	\$ 316	? to 316
Bridgeport, Connecticut	\$1.62½	\$1,304	800	? to \$1.37½	\$ 166	? to 120
Plasterers and Lathers						
Dallas, Texas	\$150 to \$1.62½	\$2,150	1,430 to 1,320	50¢ to \$1.25	\$ 350	700 to 280
State of California	62½¢ to \$1.50	\$ 937 to \$1,265	1,500 to 850	50¢ to \$1.25	\$ 211 to \$ 157	422 to 125
State of Washington	\$1.25 to \$1.50	\$1,335 to \$1,600	1,070 to 975	\$1.00 to \$1.25	\$ 352 to 294	294 to 280
Plumbers						
Denver, Colorado	\$1.37½	\$1,702	1,250	\$1.00 to \$1.37½	\$ 400	400 to 290
Gary, Indiana	\$1.50	\$1,420	950	25¢ to \$1.25	\$ 400	800 to 320
Buffalo, New York	\$1.37½	\$1,630	1,180	? to \$1.00	\$ 455	? to 455
Tile Setters						
Cincinnati, Ohio	\$1.50 to \$1.62½	\$2,700	1,800 to 1,650	80¢ to \$1.00	\$ 330	415 to 330
Philadelphia, Pennsylvania	\$1.50	\$2,180	1,450	55½¢ to \$1.25	\$ 217	396 to 175

Source: Compiled by NRA, Division of Research and Planning, from data furnished at public hearings by employers and employees in the Construction Industry.

a/ The areas here listed are designated by the names of the respective major cities or counties within them. They frequently, however, include surrounding territory.

TABLE VI

Hourly Wage Rates of Bricklayers and Hodcarriers in Various Cities,
1929, 1931, 1933, and 1934

Compiling Agency	Year	Bricklayers		Hodcarriers	
		Average Hourly Wage Rate	Number of Cities Covered	Average Hourly Wage Rate	Number of Cities Covered
Builders' Association	1929	\$1.512	114	\$0.781	103
Builders' Association	1931	1.509	121	.764	110
Builders' Association	1933	1.204	115	.624	96
Bricklayers, Masons, and Plasterers International Union of America	1933	1.206	135	----	----
Associated General Contractors	1933	.885	199	----	----
National Association of Builders' Exchanges	1933	1.218	48	----	----
Builders' Association	1934	1.237	115	.657	107
National Association of Builders' Exchanges	1934	1.214	46	----	----

Source: Compiled by NRA, Research and Planning Division, as follows:

Builders' Association data -- rotoprint releases published by it;
Bricklayers, Masons, and Plasterers Union data -- special tabulation for NRA, Research and Planning Division;
Associated General Contractors data -- as tabulated by the Association from questionnaires sent out by it;
National Association of Builders' Exchanges data -- as published in the Architectural Record.

Chapter III

MATERIALS: RAW AND SEMI-PROCESSED

Expenditures for Raw Materials

The Census data show that the 14,766 general contractors whose volume of business amounted to over \$25,000 in 1929 reported their total cost of materials in that year as \$1,188,687,000. 1/

Principal Materials Used by the Industry

An idea of the relative importance of materials used by general contractors may be gained from Table VII below. These figures also include expenditures of operative builders, but it is felt that their inclusion does not seriously impair the usefulness of these figures for showing the proportions spent for different materials. The chief materials used are sand, gravel, etc. which represented over 17 per cent of the total in 1929; cement, which represented almost 15 per cent; and lumber, which represented 12 per cent. Structural and reinforced steel, brick, millwork, and pipe (cast iron and drain-tile) are other materials used in large quantities.

Materials Imported

Few materials used in this Industry are imported. A small amount of cement is imported from Belgium and Denmark, and occasionally some brick is imported from Germany and Denmark as ballast. Steel is occasionally imported from Germany and France and shingles and lumber are imported from Canada.

1/ Census report, Construction Industry, 1929, p.21.

TABLE VII

Cost of Materials used by 14,766 General Contractors
and 750 Operative Builders in the "\$25,000 and Over" group by kind, 1929 a/

Kind of Material	Cost of Materials (Thousands)	Per Cent of Total
Sand, gravel, crushed stone, slag, cinders	\$ 150,007	17.2
Brick	52,040	6.0
Cut stone, granite and marble	21,714	2.5
Cement	127,994	14.7
Structural steel	64,873	7.4
Reinforcing steel	43,071	4.9
Lumber, rough and finished	107,049	12.3
Millwork	43,893	5.0
Hardware, rough and finished	16,704	1.9
Heating and ventilating equipment and supplies	10,636	1.2
Electrical appliances and supplies	16,036	1.8
Pipe	43,999	5.0
Bituminous paving materials, tar, asphalt, and oil	23,609	2.7
Machinery	18,410	2.1
All other materials	122,806	14.1
All materials distributed by kind	\$ 873,637	100.0

Source: Census report, Construction Industry, 1929, p. 27.

a/ Based on reports of 14,766 general contractors and 750 operative builders whose expenditures for materials in 1929 amounted to \$1,188,617,201 and \$22,002,226 respectively.

Expenditure for Machinery and Equipment

Reports submitted by 13,276 general contractors in the class with business over \$25,000 showed expenditures of \$85,452,254 for equipment purchased during 1929 and placed the total inventory value of their equipment at the end of 1929 at \$326,299,107. 1/

1/ Census report, Construction Industry, 1929, p. 96. These contractors reported the total value of their construction business as \$3,886,504,028.

Chapter IV

PRODUCTION AND DISTRIBUTION

Production of General Contractors in Principal States

Table VIII, below, shows the total amount of construction reported in 1929 by general contractors located in the principal states. These figures (Column 2 in this table) do not represent the value of construction work done in these states but rather show the total amount of business reported by general contractors located in these states. On this basis, 20 per cent of the total construction was reported by contractors in New York, 9.6 per cent in Pennsylvania, and 8.8 per cent in Illinois.

Construction Outside Home State

A large proportion of the construction is done by general contractors outside their home states. In the country as a whole, general contractors did almost 20 per cent of their work outside the state in which they were located. For the ten states shown in Table VIII, the percentages of work done outside the contractor's home state ranged from 3.3 per cent in California to 45 per cent in Massachusetts.

Advertising

National advertising in this Industry is negligible in amount, and is generally confined to magazines and newspapers. A small amount of advertising is done locally by radio, principally by firms specializing in modernization work.

TABLE VIII

Total Value of Construction and of Construction Done Outside Home State
by 14,382 General Contractors by Principal States, 1929 in the
"\$25,000 and over" group.

State	Number of Establishments Reporting	Total Value of Construction Business (thousands)	Per Cent of Total	Value of Construction Done Outside Home State (thousands)	Per Cent Outside Is of Total
California	1,354	\$ 292,111	7.1	\$ 9,607	3.3
Illinois	938	358,918	8.8	68,249	19.0
Massachusetts	590	217,115	5.3	98,302	45.3
Michigan	677	188,233	4.6	7,413	3.9
New Jersey	701	195,074	4.8	29,212	15.0
New York	1,676	819,930	20.0	131,194	16.0
Ohio	1,023	275,603	6.7	56,758	20.6
Pennsylvania	1,158	393,813	9.6	104,273	26.4
Texas	570	147,676	3.6	10,742	7.3
Wisconsin	544	88,360	2.2	8,335	9.4
All other States	5,151	1,118,885	27.3	281,904	25.2
Total in Sample for U.S.	14,382	4,095,988	100.0	805,989	19.7

Source: Census report, Construction Industry, 1929. Compiled from Table 3 for
8665 the various states.

Suggestions for Overcoming Seasonality of Production

Production in the Industry has been highly seasonal. In recent years various methods have been proposed, and to some extent tried, for regularizing production. It has been demonstrated, for instance, that winter lay-offs can now be largely avoided by taking advantage of technical changes in the art of building, recently invented machinery and power driven tools, improvements in materials, and by organizing the available work better. Another method that has been tried with success is the coordinating of jobs so that less time is wasted in changing jobs. In this connection it has been suggested that a central bureau be established as a clearing house for all construction programs in a given territory, the use of which would be voluntary. All contractors in the same line of work would pool their labor and arrange to dovetail their jobs insofar as possible. A continuous survey of the labor supply, conditions of apprenticeship, building costs, etc., would contribute toward educating the public as to the time to plan for building and repairs. Such a scheme obviously would require a maximum of cooperation among contractors in the same line.

Other proposals for eliminating seasonal slumps include the scheduling of public projects at times when private construction is normally at a low level, spreading leasing dates throughout the year to prevent concentration of repair work, planning other repair work for "off" seasons, and offering lower bids by contractors for winter construction.

Chapter V

TRADE PRACTICES

Unfair Trade Practices Prior to the Code

The following are the chief unfair trade practices which were prevalent prior to the Code:

(1) The turning out by architects or engineers, in competition with other architects, engineers or public officials, of deficient plans or specifications. - Contractors were forced to base their bids on these plans and specifications and this resulted often in losses to contractors whose bids, therefore, may have been inaccurate, or in losses to owners.

(2) The calling for an excessive number of alternate bid proposals. - This greatly increased the cost of preparing bids and was sometimes used as a device to beat down bid prices.

(3) Bid Peddling. - A contractor was considered to be "peddling" his bids if, after having already submitted his original bid on a project, he learned what the low bid had been and offered by some means or other to reduce his bid below the low bid, or by other devices lowered his original bid. The result of the practice was to lower prices and standards in the Industry.

(4) Bid Shopping. - An awarding authority was considered to be engaged in "bid shopping" when it rejected all original bids on a project, often revealing the low bid, for the purpose of calling for new bids at still lower prices, or when by other devices it sought to induce a low bidder to reduce his price. The effect upon the industry was the same as that of "bid peddling."

(5) The withholding by general contractors of payments due subcontractors or material men. - This was done so that such contractors might utilize the funds withheld to finance other projects for which they were having difficulty in obtaining the necessary money.

(6) Excessive Back-Charging. - This practice was first used on large projects. When a subcontractor had performed his share of a job he would be presented with a bill from the general contractor calling for the payment of excessive fees for having used some of the contractor's equipment, such as scaffolding or hoists.

(7) Substitution of Inferior Materials. - Intense competition giving rise to the practice of bid peddling and bid shopping and resulting in prices which were unreasonably low, often forced contractors or subcontractors to substitute inferior cheap materials in order to save themselves possible losses on projects where prices had been thus cut. Desire for greater profit also resulted in the substitution of inferior materials.

(8) Unbalanced Bidding. - This is a practice in which contractors in heavy and highway construction sometimes engaged. On many projects, bids were based on numerous different units, such as per cubic yard of dirt or rock to be removed, or per thousand feet of lumber to be used. By taking advantage of their own findings on the number of units and their costs, as against the specifications of an awarding authority's engineer, contractors regulated the specific bids on units of work so that the total of their bids for all units would be low and at the same time might bring high profits on certain units of the work which they suspected would be more numerous than the awarding authority's engineer had estimated. Likewise, by quoting high prices on units of work which would be completed early in the life of a project and keeping until near the end the units performed at low prices, a contractor was able to force an owner to bear a large portion of the financing costs through the greater part of the life of the project and still keep his total bid sufficiently low. The unbalancing of bids, also assumed many other forms.

(9) Reducing Wages, Lengthening Working Hours and Debasing Other Conditions of Workmen. - These practices arose from and accentuated depression conditions. They broke down the foundation upon which the competitive standards, such as they were, had been maintained, and helped plunge the Industry into the condition existing in 1933.

(10) Inequities Arising from Loose Credit Practices. - Lien laws made owners as well as contractors responsible for the payment of material and other bills. As a result, credit sometimes was loosely extended to irresponsible contractors, who would finish projects and leave debts for materials, etc., to be paid by owners. The ability to employ this method to defraud owners naturally resulted in loose bidding by irresponsible contractors, who often cut bid prices below anticipated costs. Contractors thus performing contracts at a loss were enabled to thrive, especially during the period immediately preceding the depression.

(11) The Kick-Back Racket. - To avoid the payment of wage scales required by Union agreements or otherwise, there developed what became known as the "kick-back racket." In order to undercut the required rate, some contractors would pay the required scale to their employees in full. Thereupon, the employees, immediately upon the receipt of their pay checks, would be forced by the contractors (under the threat of losing their jobs, etc.) to give back, or "kick-back" a portion of their daily or weekly earnings.

(12) The Lumping or Subletting of Labor. - When a contractor obtained a contract for a project from an owner, he might undertake to furnish only the materials for the job and let to a subcontractor or a journeyman the responsibility of providing the necessary labor for the job at a specified price. Such subcontracts, calling for the provision of labor alone were usually negotiated at a low price, at which the contractor who provided the material was safeguarded against loss, while the profit of the subcontractor or labor-gang foreman ordinarily depended upon his ability to hire as little labor and at as low wages as possible and to exploit the labor thus employed. The imposition of such conditions upon a subcontractor or a journeyman gang foreman naturally resulted in the degradation of labor conditions and of the laborers thus hired. The results, of course, were the debasement of labor

standards for whole communities, the unsettling of competitive conditions and hurried, slipshod work, causing dissatisfaction among project owners and injuring the reputation of the original contractor.

(13) Setting Bid Price Below Cost with the Expectation of Grinding Profits Out of Subcontractors, or of Profiting by not Paying Material Bills. - By this practice a contractor submitted his bid on a project below his own estimated cost, expecting to take advantage of competition among subcontractors in order to recoup not only the losses but also perhaps to gain some profit. Bound up with this practice were the practices of bid peddling, bid shopping, etc.

(14) The Employment of Prison Labor. - In the Street Paving and Highway Construction Subdivision of the Industry, in particular there has been a tendency in some States to substitute convict labor for free labor. Contractors in Street Paving and Highway Construction usually have a great deal of capital invested in mechanized equipment. These contractors, in the states where convict labor has moved into the field, have found themselves confronted with ruin and the loss of expensive equipment, which in many cases has been put up as collateral for credit. With impoverished crews of workmen, they have been driven into states where convict labor has not demoralized the market, and in those states they have slashed prices and wages in desperate attempts to save their equipment and their businesses.

Trade Practices Which, Because of Abusive Use, Became Detrimental

Many of the unfair trade practices in the Construction Industry are the outgrowths of normal practices, and their unfairness depends often upon the degree to which and the purposes for which the normal practices are engaged in.

(1). Calling for alternate bids may be justifiable to give the bidding contractors a clear leeway to suggest new and perhaps cheaper and more efficient designs and to provide an idea of the relative costs of designs. Only when an excessive number of alternate bids are required and the purpose is to beat down prices, does this practice become unfair.

(2). An awarding authority may be justified in calling for new bids upon discovering that true competition has been absent or that the specifications upon which bids have been received will cost more than the awarding authority can afford. When new bids are repeatedly called for in order to beat down prices, however, this becomes an unfair trade practice.

(3). General contractors and owners have by contract requirements always withheld 10 or 15 per cent of the monthly amounts owing for work performed, usually to be paid upon the completion of a job or in the case of contractors, upon the receipt of the final payment from the owner. The practice becomes unfair, however, when the amounts withheld are excessive or are withheld for devious purposes without the consent of the creditor and in excess of amounts as provided in contracts.

(4). It is considered ethical for a subcontractor of his own accord to pay reasonable fees for the use of a general contractor's equipment. General contractors, however, have been known to force subcontractors to

use their equipment in order to overcharge them for it. And often, although not provided in contracts, general contractors will submit to subcontractors bills for excessive payments for the use of the general contractor's equipment and general services. Under the latter conditions, the practice becomes unfair and is known as "excessive back charging."

(5). Inferior materials, if agreed to by the owner, may be substituted justifiably on a project for the sake of expediency, or for other reasons. The substitution of inferior materials without the knowledge of an owner, however, is unfair.

(6). Unbalanced bidding may be justifiable if the owner of a project is informed of it and consents because he is able to secure money more cheaply than the contractor. By unbalancing the unit price bids so that the owner, rather than the contractor, carries the heavier financing cost during most of the life of the project, savings may be obtained on the total costs. Unbalanced bidding, however, may serve as a means for contractors to take advantage of unforeseen circumstances (foreseen by the contractors but not by the engineers who prepared the plans and specifications upon which the estimates are based), by which certain units which are bid at a high price per unit are found upon performance to exceed the number of units which were estimated, thereby enabling the contractors to profit unreasonably at the expense of owners.

(7). In a few service trades, such as painting and decorating, the letting of contracts for labor services alone, when the contracts guarantee fair wages, etc., may be justified. There are interior decorators in many cities and towns, for example, who limit their activities to designing and advising and who maintain no forces of their own. When they secure decorating contracts involving, for instance, painting they go into the field and hire, probably through a subcontractor, the necessary skilled labor, whom they furnish with materials. Under such circumstances, the lumping or subletting of labor is justifiable.

The development or the causes of the other unfair trade practices set forth in the list of unfair practices are debatable. There may of course be peculiar circumstances when some of them may be justifiable, but, as stated, the determination of unfair practices in the Industry must be based upon the degree or the purposes of the practices as well as upon the practices themselves.

Chapter VI

GENERAL INFORMATION

Associated General Contractors of America

Among the building contractors, local and regional organizations have existed almost from the inception of the general contracting system. The necessity for dealing with labor unions which were fairly well organized provided a stimulus for organization. Various state and regional associations of general contractors have an extended history in dealing with state legislation relating to compensation insurance and other labor problems. It was not until 1918, however, that the Associated General Contractors of America was formed, which was an organization on a national scale composed exclusively of general contractors in building and other construction fields.

In the field of highway construction, general contractors appear to have been more individualistic than in the field of building. There are records of municipal associations of contractors engaged in street paving, sewer construction, and similar work, but organization on a broader scale took place only after the centralization of highway construction programs in the hands of state highway commissions and other state agencies and after the expansion of activities resulting from the development of the automobile and the advent of the gasoline tax. Consequently, the first important organizations of general contractors in the highway field usually included contractors over an entire state. When the Associated General Contractors of America was organized, state associations of highway contractors joined. The group activities of the highway contractors have been concerned chiefly with programs for the standardization of bidding procedure, specifications and other factors as for example the standardization of equipment in cooperation with equipment manufacturers for the purpose of avoiding heavy losses resulting from frequent changes in concrete mixers and other equipment which rendered expensive equipment obsolete after a short period of use.

Contractors in the heavy construction field, whose activities shift from one part of the country to another, have had little to gain from local organizations. Numbers of them have felt, however, that affiliation with the Associated General Contractors of America, offered them an opportunity for united efforts in furthering their interests with engineers, public officials, and federal and state legislators, and also enhanced their prestige in the eyes of the public.

The membership of the Associated General Contractors of America has varied from 1,300 to about 2,700 members, organized in local, state, and regional chapters which range in size from 60 to 125 members each. This is the only national organization composed exclusively of general contractors.

Among the objectives of the Associated General Contractors of America, which have varied from time to time, are: expansion of construction volume and protection of the market for general contractors; improvement and standardization of competitive bidding practices; improvement in the procedure of surety bonding concerns; elimination of irresponsible contractors; reform of local building codes; elimination of governmental agencies engaged in construction through the direct employment of day labor; correction of

loose credit practices; permanent reforms in legislation pertaining to state mechanics lien acts; and prevention of accidents.

Competitive Organizations

Although the Associated General Contractors of America is the only national organization, there are many local, state, and regional organizations which are competitive to and sometimes actively opposed to its policies. Typical organizations of this kind are: in the building division, the Master Builders' Association of Wisconsin, a small proportion of whose members is also affiliated with A. G. C.; in the highway field, the American Road Builders' Association, whose membership also includes engineers, public officials, and material and equipment concerns; the Georgia Road Builders' Association, and the New England Road Builders' Association. In the heavy construction division there is the General Contractors' Association of New York, a group which antedates the A. G. C., and which joined the A. G. C. but broke away after a year or two.

Organizations of Labor Employed by General Building Contractors

Organized construction labor is largely confined to the building section of the Industry. To some extent general contractors employ members from practically all of the organized crafts in the building field. However, they employ only a minority of the members of a great many of these crafts who work for the most part for specialized subcontracting groups. The majority of the employees of general building contractors consists of carpenters, bricklayers, operating engineers, and common laborers. The respective organizations of these crafts, therefore constitute the major unions with which general contractors engage in collective bargaining.

The various labor organizations and their voting strength as reported to the American Federation of Labor at conventions in 1929 and 1933 are shown in Table IX below. The number of local unions existing in 1929, as reported in the Handbook of American Unions, published by the Bureau of Labor Statistics, is likewise shown.

TABLE IX

Status of AFL and Independent Unions Functioning in the
Construction Industry, 1929 and 1933

Name of Union	Voting Strength Reported a/ 19291933		Per Cent Decline in Voting Strength 1929 to 1933	Number of Local Unions 1929 c/
<u>Principal AFL Unions</u>				
International Association of Heat and Frost Insulators and Asbestos Workers	2,900	2,000	31	53
Bricklayers, Masons and Plasterers International Union of America	90,000	45,800	49	906
International Association of Bridge Structural and Ornamental Iron Workers	20,400	10,000	51	149
United Brotherhood of Carpenters and Joiners of America	322,000	205,800	35	2,061
International Union of Elevator Constructors	10,200	10,200	---	77
International Federation of Technical Engineers, Architects and Draftsmen's Union	1,500	700	53.5	17
International Brotherhood of Electrical Workers	142,000	94,100	33.5	617
International Union of Operating Engineers	33,000	35,000	+ 6	273
National Marine Engineers Beneficial Association of the United States of America	---	---	--	61
The Granite Cutters International Association of America	8,500	5,000	41	98
International Hodcarriers' Building and Common Laborers' Union of America	91,700	52,100	43	481
Wood, Wire and Metal Lathers International Union	16,500	8,100	51	261
International Association of Marble, Stone and Slate Polishers, Rubbers and Sawyers, Tile and Marble Setters Helpers and Terrazzo Workers Helpers	6,400	6,200	3	52
International Union of Pavers, Rammermen, Flaggers Bridge and Stone Curb Setters	2,000	2,000	---	82
Brotherhood of Painters, Decorators, and Paperhangers of America b/	108,100	59,300	45	1,170

(Continued on next page)

TABLE IX (Cont'd)

Status of AFL and Independent Unions Functioning in the
Construction Industry, 1929 and 1933

Name of Union	Voting Strength Reported a/ 1929 1933		Per Cent Decline in Voting Strength 1929 to 1933	Number of Local Unions 1929 c/
Operative Plasterers and Cement Finishers International Associa- tion of the United States and Canada	39,200	22,600	42	449
United Association of Journeymen Plumbers and Steamfitters of the United States and Canada	45,000	45,000	--	656
United Slate, Tile and Composition Roofers, Damp and Waterproof Workers Association	4,000	4,000	--	94
Journeymen Stone Cutters Associa- tion of North America	5,800	5,600	3.5	136
Sheet Metal Workers International Association	25,000	17,500	30	410
Total	974,200	631,000	34 (average)	8,103

Unions Whose Members Occasionally Engage in Construction

International Brotherhood of Boilermakers, Iron Shipbuilders and Helpers of America	17,200	14,200	17.5	284
International Brotherhood of Firemen and Oilers	9,500	9,200	3	785
International Brotherhood of Blacksmiths, Drop Forgers and Helpers	5,000	5,000	--	187
International Brotherhood of Team- sters, Chauffeurs, Stablemen and Helpers of America	95,000	71,300	25	358
Total	126,700	99,700		1,614

National Independent Unions in the Construction Field

Federation of Architects, Engineers and Chemist Technicians	7,000 d/
General Construction Workers Industrial Union (IWW)	e/
Building Construction Workers Industrial Union (IWW)	e/

TABLE IX (Cont'd)

Source: As indicated in footnotes.

- a/ As reported at the 53rd Annual AFL Convention, October 2 to 13, 1933, at Washington, D. C., and at the 54th Annual Convention, October 1 to 12, at San Francisco, California.
- b/ Data of the NRA, Research and Planning Division indicate that both employing and self-employed contractors in many instances belong to local painters' unions.
- c/ As reported in Bureau of Labor Statistics, Handbook of American Unions, (1929 Edition Bulletin #506).
- d/ 1934 membership.
- e/ Membership not ascertainable.

Effect of the Code

The operation of the Code in this Industry is believed to have diminished to an unknown degree the number of members who regularly engaged in unfair trade practices.

No data are available to determine the extent to which the Code has helped to maintain bid prices above costs, but it is believed that the influence of the Code upon wage levels in the Industry may have helped to maintain bid prices among the members who adhered to the wage provisions of the Code.

Wage data, presented in Chapter II, indicate that the average wage rates paid to construction workers have declined since 1929 but have increased since 1933.

Experts

The Code Authority submits the names of the following individuals who, due to their training and experience, are thoroughly familiar with conditions in the Industry.

Henry Ericsson
228 N. LaSalle St.
Chicago, Illinois

Graduate of the Stockholm
Tehnik School and President of
the Henry Ericsson Company

Thomas Thorne Flagler
138 N. Ave.
Atlanta, Georgia

B. S. Degree, University of
Pennsylvania. Mr. Flagler was
employed from 1903 to 1910 by the
Standard Oil Company handling con-
struction throughout the south.
Since 1910 he has been President
of the Flagler Company.

Albert Preston Greensfelder
502 Merchants Laclede Bldg.
St. Louis, Missouri

B. S. Degree in Civil Engineering,
1901, Washington University.
President, Frimm-Colnon Contracting
Company

J. D. Taylor
115 S. Salina St.
Syracuse, New York

B. S. Degree, Civil Engineering,
University of Pennsylvania.
President, J. D. Taylor Construction
Company

John W. Cowper
Buffalo, New York

President, The John W. Cowper Co.
Educated in private schools and
preparatory schools at Warrenton, Va.

